

# Carbon Film Resistors, Special Purpose, High Voltage



## FEATURES

- Ratings to 100 W, 125 kV
- Available with either radial bands or ferrule terminals
- Standard models epoxy/enamel coated, additional vinyl heat shrink sleeve available for added protection
- Model G is non-inductive
- $\pm 20\%$  tolerance standard, tolerances of  $\pm 15\%$ ,  $\pm 10\%$  and  $\pm 5\%$  available
- See models B and T for general purpose high voltage carbon film resistors

## STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | HISTORICAL MODEL | POWER RATING<br>$P_{70^\circ\text{C}}$<br>W | MAXIMUM WORKING VOLTAGE<br>(1)<br>V | RESISTANCE RANGE<br>(2)<br>$\Omega$ | TOLERANCE (3)<br>$\pm \%$ | STYLE |               |
|--------------|------------------|---------------------------------------------|-------------------------------------|-------------------------------------|---------------------------|-------|---------------|
| DJU          | DJU              | 10                                          | 25K                                 | 50K to 500M                         | 5, 10, 15, 20             | 3     | Non-Inductive |
| DPW          | DPW              | 20                                          | 35K                                 | 100K to 500M                        | 5, 10, 15, 20             | 3     |               |
| DPW..1       | DPW-1            | 20                                          | 35K                                 | 100K to 500M                        | 5, 10, 15, 20             | 4     |               |
| DPX          | DPX              | 30                                          | 65K                                 | 100K to 500M                        | 5, 10, 15, 20             | 3     |               |
| DPX..1       | DPX-1            | 30                                          | 65K                                 | 100K to 500M                        | 5, 10, 15, 20             | 4     |               |
| DVY          | DVY              | 60                                          | 90K                                 | 400K to 500M                        | 5, 10, 15, 20             | 3     |               |
| DVY..1       | DVY-1            | 60                                          | 90K                                 | 400K to 500M                        | 5, 10, 15, 20             | 4     |               |
| DZW          | DZW              | 35                                          | 40K                                 | 300K to 500M                        | 5, 10, 15, 20             | 3     |               |
| DZW..1       | DZW-1            | 35                                          | 40K                                 | 300K to 500M                        | 5, 10, 15, 20             | 4     |               |
| DZZ          | DZZ              | 100                                         | 125K                                | 700K to 500M                        | 5, 10, 15, 20             | 3     |               |
| DZZ..1       | DZZ-1            | 100                                         | 125K                                | 700K to 500M                        | 5, 10, 15, 20             | 4     |               |
| GJU          | GJU              | 10                                          | 16K                                 | 1K to 1M                            | 5, 10, 15, 20             | 3     |               |
| GPW          | GPW              | 20                                          | 18K                                 | 1K to 1M                            | 5, 10, 15, 20             | 3     |               |
| GPW..1       | GPW-1            | 20                                          | 18K                                 | 1K to 1M                            | 5, 10, 15, 20             | 4     |               |
| GPX          | GPX              | 30                                          | 25K                                 | 1K to 1M                            | 5, 10, 15, 20             | 3     |               |
| GPX..1       | GPX-1            | 30                                          | 25K                                 | 1K to 1M                            | 5, 10, 15, 20             | 4     |               |
| GVY          | GVY              | 60                                          | 30K                                 | 1K to 5M                            | 5, 10, 15, 20             | 3     | Non-Inductive |
| GVY..1       | GVY-1            | 60                                          | 30K                                 | 1K to 5M                            | 5, 10, 15, 20             | 4     |               |
| GZW          | GZW              | 35                                          | 20K                                 | 1K to 1M                            | 5, 10, 15, 20             | 3     |               |
| GZW..1       | GZW-1            | 35                                          | 20K                                 | 1K to 1M                            | 5, 10, 15, 20             | 4     |               |
| GZZ          | GZZ              | 100                                         | 32K                                 | 1K to 10M                           | 5, 10, 15, 20             | 3     |               |
| GZZ..1       | GZZ-1            | 100                                         | 32K                                 | 1K to 10M                           | 5, 10, 15, 20             | 4     |               |

### Notes

- (1) Continuous working voltage shall be  $\sqrt{P \times R}$  or maximum working voltage, whichever is less.  
(2) All resistance values are calibrated at 100 V<sub>DC</sub>-calibration at other voltages available on request.  
(3)  $\pm 20\%$  standard,  $\pm 5\%$ ,  $\pm 10\%$ , and  $\pm 15\%$  are available.

## GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: DPW2M50LB191 (preferred part numbering format)

|                                                |          |                                                                                                                      |          |          |                                                                                 |          |                                                                                                                                                                                                                    |          |          |                                                                                                                              |          |  |  |
|------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------|----------|----------|---------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------|----------|--|--|
| <b>D</b>                                       | <b>P</b> | <b>W</b>                                                                                                             | <b>2</b> | <b>M</b> | <b>5</b>                                                                        | <b>0</b> | <b>L</b>                                                                                                                                                                                                           | <b>B</b> | <b>1</b> | <b>9</b>                                                                                                                     | <b>1</b> |  |  |
| GLOBAL MODEL                                   |          | RESISTANCE VALUE                                                                                                     |          |          | TOLERANCE CODE                                                                  |          | PACKAGING                                                                                                                                                                                                          |          |          | SPECIAL                                                                                                                      |          |  |  |
| (See Standard Electrical Specifications table) |          | <b>R</b> = Ω<br><b>K</b> = kΩ<br><b>M</b> = MΩ<br><b>100R</b> = 100 Ω<br><b>13K0</b> = 13 kΩ<br><b>500M</b> = 500 MΩ |          |          | <b>J</b> = ± 5 %<br><b>K</b> = ± 10 %<br><b>L</b> = ± 15 %<br><b>M</b> = ± 20 % |          | <b>E19</b> = Lead (Pb)-free, Bulk (all, except DJU, GJU)<br><b>E03</b> = Lead (Pb)-free, Skin (DJU, GJU only)<br><b>B19</b> = Tin/Lead, Bulk (all, except DJU, GJU)<br><b>J03</b> = Tin/Lead, Skin (DJU, GJU only) |          |          | Blank = Standard (Dash Number) (up to 3 digits)<br>From <b>1</b> to <b>999</b> as applicable<br><b>1</b> = Ferrule Terminals |          |  |  |

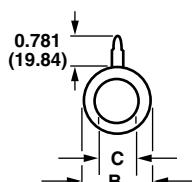
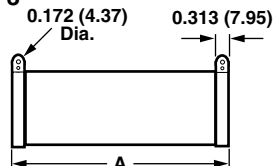
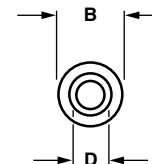
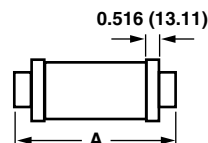
Historical Part Number example: DPW-12M50L (will continue to be accepted)

|                  |                  |                |            |
|------------------|------------------|----------------|------------|
| <b>DPW-1</b>     | <b>2M50</b>      | <b>L</b>       | <b>B19</b> |
| HISTORICAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING  |

### Note

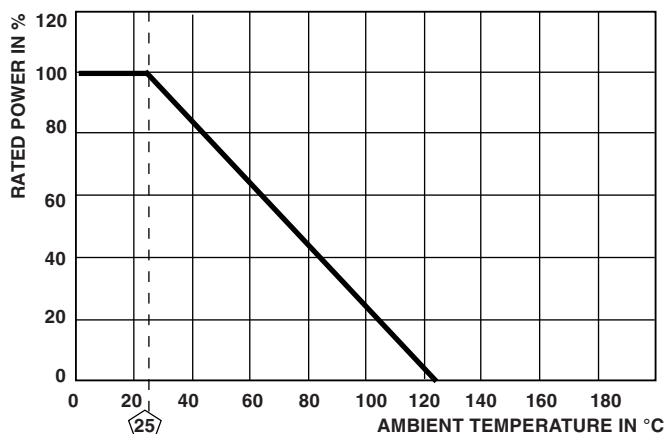
- For additional information on packaging, refer to the Through-Hole Resistor Packaging document ([www.vishay.com/doc?31544](http://www.vishay.com/doc?31544)).

**DIMENSIONS** in inches (millimeters)

**Style 3**

**Style 4**


| GLOBAL MODEL | STYLE | A              | B <sup>(1)</sup> | C            | D             |
|--------------|-------|----------------|------------------|--------------|---------------|
| DJU          | 3     | 4.50 (114.30)  | 0.750 (19.05)    | 0.50 (12.70) | N/A           |
| DPW          | 3     | 6.50 (165.10)  | 1.13 (28.70)     | 0.75 (19.05) | N/A           |
| DPW..1       | 4     | 7.69 (195.33)  | 1.13 (28.70)     | N/A          | 0.812 (20.62) |
| DPX          | 3     | 10.50 (266.70) | 1.13 (28.70)     | 0.75 (19.05) | N/A           |
| DPX..1       | 4     | 11.69 (296.93) | 1.13 (28.70)     | N/A          | 0.812 (20.62) |
| DVY          | 3     | 14.50 (368.30) | 1.50 (38.10)     | 1.13 (28.70) | N/A           |
| DVY..1       | 4     | 15.69 (398.53) | 1.50 (38.10)     | N/A          | 1.14 (28.96)  |
| DZW          | 3     | 6.50 (165.10)  | 2.0 (50.80)      | 1.56 (39.62) | N/A           |
| DZW..1       | 4     | 7.69 (195.33)  | 2.0 (50.80)      | N/A          | 1.14 (28.96)  |
| DZZ          | 3     | 18.50 (469.90) | 2.0 (50.80)      | 1.56 (39.62) | N/A           |
| DZZ..1       | 4     | 19.69 (500.13) | 2.0 (50.80)      | N/A          | 1.14 (28.96)  |
| GJU          | 3     | 4.50 (114.30)  | 0.750 (19.05)    | 0.50 (12.70) | N/A           |
| GPW          | 3     | 6.50 (165.10)  | 1.13 (28.70)     | 0.75 (19.05) | N/A           |
| GPW..1       | 4     | 7.69 (195.33)  | 1.13 (28.70)     | N/A          | 0.812 (20.62) |
| GPX          | 3     | 10.50 (266.70) | 1.13 (28.70)     | 0.75 (19.05) | N/A           |
| GPX..1       | 4     | 11.69 (296.93) | 1.13 (28.70)     | N/A          | 0.812 (20.62) |
| GVY          | 3     | 14.50 (368.30) | 1.50 (38.10)     | 1.13 (28.70) | N/A           |
| GVY..1       | 4     | 15.69 (398.53) | 1.50 (38.10)     | N/A          | 1.14 (28.96)  |
| GZW          | 3     | 6.50 (165.10)  | 2.0 (50.80)      | 1.56 (39.62) | N/A           |
| GZW..1       | 4     | 7.69 (195.33)  | 2.0 (50.80)      | N/A          | 1.14 (28.96)  |
| GZZ          | 3     | 18.50 (469.90) | 2.0 (50.80)      | 1.56 (39.62) | N/A           |
| GZZ..1       | 4     | 19.69 (500.13) | 2.0 (50.80)      | N/A          | 1.14 (28.96)  |

**Note**
<sup>(1)</sup> Dimensional tolerances are  $\pm 0.016"$  (0.406 mm) or  $\pm 1\%$ , whichever is greater.

**DERATING**

**MARKING**

- Dale
- Model
- Value
- Tolerance
- Date code



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